

L 37020-66 EWT(1)/T/EWP(t)/ETI IJP(c) JD/GG

ACC NR: AP6027067

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4/9
2

AUTHOR: Sommar, I. W. (Engineor); Cuchy, Zd. (Engineer)

ORG: [Sommar] Physics Laboratory, Faculty of Natural Sciences, J. E. Purkyne University, Brno (Laborator fyziky prirodovedecko fak. university J. E. Purkyne); [Cuchy] Research Institute of Single Crystals, Turnov (Vyzkumny ustav monokrystalu)

TITLE: Evaluation of the mosaic structure of single crystals

SOURCE: Jemna mechanika a optika, no. 3, 1966, 70-73

TOPIC TAGS: single crystal, crystal structure, goniometer, angular distribution

ABSTRACT: Methods of comparison of the disorientation of the mosaic structure are described and compared; with the x-ray goniometer, exactness under one minute can be attained. A quantitative determination of the mosaic disorientation and of its angular distribution in crystals permits a suitable choice of crystals or of a crystal section with a possibly perfect structure. Orig. art. has 7 figures, 3 formulas, and 3 tables. [Based on authors' Eng. abst.] [JPRS: 36,465]

SUB CODE: 20, 17, 12 / SUBM DATE: 08Jun65 / ORIG REF: 006 / SOV REF: 001
OTM REF: 007

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Card 1/1

UDC: 548.73
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006A

SOMMER, J.

Strojirenstvi, Vol 8, Nr 4, 1958, p 290-292

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36

Distr: 4E2b

Sommer J.: Results of measuring with strain gauges and their evaluation.

Preliminary determining the location and values of concentrated stresses by means of strain gauges is practically indispensable for computing heavy machinery and various complicated installations. In most cases only conventional strain gauges with the 20 mm base are available for measurements to be taken. The gauges of this kind are not suitable for direct measuring of stress in the points of its local concentration and gauges with much shorter base should be used instead. The results obtained with normal strain gauges must be therefore transformed to obtain reliable values. The author discusses several evaluating methods, in the first line extrapolation and differential ones. New differential method is suggested simplifying evaluation and improving its precision.

Card 1/1

Retyped clipped abstract

87

L 1642-66 EWA(d)/EWP(t)/EWP(z)/EWP(b) JD

ACCESSION NR: AP5024323

cz/0037/64/000/006/0522/0532

AUTHOR: Sommer, Jaroslav

30

B

TITLE: Measurement of susceptibility of ferromagnetic dust

SOURCE: Ceskoslovensky casopis pro fysiku, no. 6, 1964, 522-532

TOPIC TAGS: ferromagnetic material, magnetic susceptibility

ABSTRACT: Described is a new method of measuring the susceptibility of a dust particle (ferromagnetic dust) which is valid in a wider range of values of the bulk concentration than is the case with methods of calculation according to KONDORSKY or LICHTENRECKER. Orig. art. has: 14 formulas, 4 graphs, 6 tables.

ASSOCIATION: Katedra fysiky Vysoke skoly banske, Ostrava (Department of Physics, Mining College)

SUBMITTED: 00

ENCL: 00

SUB CODE: EM

MR REF Sov: 003

OTHER: 009

JPRS

Card 1/1 BP

SUMER, Karel

Quick-clamping chuck. Stroj vyr 11 no.8:412 Ag '63.

1. Zavody na výrobu kuličkových ložisek, Výzkumný ústav pro
valivé ložiska, Brno - Komárov.

*Campfire, R. J. A.*RUMANIA/Chemical Technology - Chemical Products and Their
Application, Part 3. - Drugs, Vitamins, Antibiotics.

H-16

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 22416

Author : E. Grigorescu, Lia Sommer.

Inst :

Title : Pharmacognostical Study of the Plant Ceranium Phaeum L.

Orig Pub : Farmacia (Romin), 1957, 5, No 1, 30-41

Abstract : The presence of four unknown tannin compounds was established in the above mentioned plant by the chromatography-on-paper method. These compounds may be used pharmaceutically.

Card 1/1

SOMMER, Lia

RUMANIA

Pharmacist

Laboratory of Pharmacognosy of the School of Pharmacy, Biological
Products Section, of the "Dr. I. Cantacuzino" Institute and the
Laboratory of Bacteriology, Bucharest.Bucharest, Farmacia, Revista a Uniunii Societilor de Sanitate Medicale
din Republica Populara Romana, No 2, Vol X, May 68, pp 535-540."The Antimicrobial Effect of Volatile Oil Extracted from Herba Unisetii
minoris." (Report on experiments carried out in the Laboratory of
Pharmacognosy of the School of Pharmacy, Biological Products Section,
of the "Dr. I. Cantacuzino" Institute and the Laboratory of bacteriology,
Bucharest.)

Co-wrt yrs:

MIRCEA, Leonie, Pharmacist. RUMASU, Gheorghe

SOMMER, L., OKIC, A.

"Analytical Evaluation of Chromotropic Acid" p. 659, (CHEMICKÉ LISTY, Vol. 47,
no. 5, May 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

SOMMER, L.

Chemical Abst.
Vol. 48
A pr. 10, 1954
Analytical Chemistry

Volumetric determination of small amounts of fluorides with ferric salts. — Sommer (Plzen/Orlické hory, Brno, Czech.). Chem. Abstr. (1958). — The following procedure is recommended for detg. small amts. of F⁻: To 10-15 ml. of a soln. at pH 8-9 and contg. less than 10 mg. F⁻, add 2 g. NaCl, 10 ml. 96% EtOH, 5 drops of 20% KSCN, and titrate with 0.06*N* FeCl₃ soln., which is 0.01*N* in HCl. When the soln. is a pale yellow, add Et₂O to cover the surface of the liquid and finish titrating to a pink color.

M. Hodilka

Chemical Chem.
Vol. 4:
Apr. 10, 1954
Analytical Chemistry

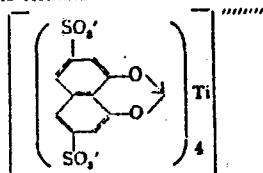
Detection and photometric determination of 4-phenyl-2-
benzoyl-4-phenyl-2-pyridone. Bruno Czaja, J. G. G.
1. Dissolve 1 g. of the product in 10 ml. of 1 N NaOH. Add 1 ml. of 1% Cu(OAc)₂ solution. After 15 min. dilute to 10 ml. with water. Add 1 ml. of 1% Fe(OAc)₃ solution. After 15 min. dilute to 10 ml. with water. Measure the absorbance at 430 m μ . M. Hinsley.

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SOMMER, L.

1834. Analytical evaluation of chromotropic acid.
 A. Okáč and L. Sommer (*Coll. Czech. Chem. COMMUN.*, 1964, **19** (3), 415-420).—The reaction of chromotropic acid (1:8-dihydroxynaphthalene-3,6-disulfophonic acid) with Ti⁺⁺⁺ in dil. and in conc. H₂SO₄ soln. is studied by spectrophotometric and potentiometric methods. In a soln. of pH 3.5 to 5, Ti⁺⁺⁺ reacts with the reagent to form a stable dissociated complex having λ_{max} . at 470 m μ . The Job continuous-variation curves indicate that the compound has the formula—



In acetate buffer soln. of pH 6 to 7 and in citrate soln. of pH 2.1 to 2.4, an orange-yellow complex compound is formed; in citrate soln., the ratio of Ti⁺⁺⁺ to reagent is 1 to 2. The red-violet colour produced when Ti⁺⁺⁺ reacts with chromotropic acid in conc. H₂SO₄ is due to the formation of an oxidation product; a product with a similar absorption curve is obtained by the reaction of chromotropic acid with K₂Cr₂O₇ in 3*N* H₂SO₄ or with Cu⁺⁺ and UO₂⁺⁺ in an ammoniacal medium. The red-violet colour corresponds to the presence of 4 atoms of oxygen per molecule of chromotropic acid; vigorous oxidation yields yellow products, the formation of which is accompanied by the consumption of 4 to 6 atoms of oxygen. With Hg⁺⁺, chromotropic acid forms a non-homogeneous yellow ppt.; in analysis, the effect of Hg⁺⁺ can be eliminated by converting it to undissociated compounds. The

following method for the determination of Ti utilizes the complex formed in dilute acid soln. Procedure. To 20 ml of the test soln. containing 0.1 to 13 μg of Ti per ml, add H_2SO_4 , to make the acidity 0.1 N , and 2 to 6 ml of freshly prepared 6 per cent. soln. of the disodium salt of chromotropic acid; add 20 to 25 ml of 3*M* Na acetate soln. to make the pH 3.6 to 6, and dilute to 100 ml with distilled water. After 20 min., measure the extinction at 470 $\text{m}\mu$. The reagent should be present in ten-fold excess in both the test solution and in the standard. Chromate and ferric ions interfere; Fe^{+++} is reduced by treatment of the soln. with hydroxylamine HNO_2 at 70° C. If present in high concn., with conc. H_2SO_4 . The complex is also sensitive

to salts, and its colour is dependent on the ionic strength of the soln. [This is a translation into Russian of a paper previously published in *Chem. Listy*, 1953, 47, 650.]

E. HAYES

Capillary analysis of anthracene, phenanthrene, and carbazole. J. Šimánek (Přírolovědecká Fak., Brno, Czech.). Chem.-Listy 48, 121-4 (1954).—A capillary test for anthracene (I), phenanthrene (II), and carbazole (III) is based on the blue fluorescence of I, dark violet fluorescence of III, and light violet fluorescence of II, all soaked in filter paper in CaH_2 soln. Exposed to HNO_3 vapors for 10 sec., III gives a green spot, I a yellow spot, and II also a yellow spot after prolonged exposure. HNO_3 extinguishes the fluorescence in the order II, III, and I. M. Hudlický
JL-T-54
mrd

Analytical evaluation of kojic acid. Arnošt Okáč, Lumír Sommer, and Gyorgy Rády (Masarykova Univ., Brno, Czech.). *Chem. Listy* 48, 823-34 (1954).—Kojic acid (I) shows in neutral or slightly acidic medium characteristic color tests with Fe^{3+} (red or red-orange), UO_2^{2+} (orange-red or orange-yellow), and Cu^{2+} (light green ppt.). The compn. of the complexes of I with Fe and UO_2^{2+} was followed photometrically, and their formal dissociation constants were detd.

The Cu salt was isolated by pptg. a soln. of 3 g. Cu(OAc)_2 in 50 ml. H_2O with 1% soln. of I, and by adding to the mixt. 1-5 ml. NaOAc. M. Hudlický

Sommer, LUMIR

Microdetermination of metals by electrolysis without applied voltage. *Arnošt Šíkář and Lumír Sommer* (Masarykova Univ., Brno, Czech.). *Chem. Listy* 48, 137-50 (1954).—Electrolysis without applied voltage was carried out in special equipment with Pt as a cathode, and Pb or Al anode covered with collodium. The method is suitable for detns. of small and trace amts. of metals. It was used successfully for the detn. of Bi, Sb, Cu, and for separ. of the named metals from Pb, Ni, Co, and Fe. Cu can be detd. only in nonalloy steels. A sample contg. 1-8 mg. Bi in 60-60 ml. was electrolyzed 30 min. at 80° after th. addn. of 20% HNO₃. In the presence of large excess Pt 6 ml. M terephic acid (I) and 2 g. CO(NH₂)₂ were added to 50-60 ml. soln. acidified with 3-8 ml. 20% HNO₃. To det. Sb, electrolysis was carried out in 60-60 ml. soln. contg. 1-5 mg. Sb after acidification with 2-7 ml. 20% HNO₃, and addn. of 2-6 ml. of M I, 10 g. H₂NOH.HCl, and 2 g. CO(NH₂)₂. The initial current was 12-15 ma. Cu was detd. in a soln. contg. 1-8 mg. Cu, 8-10 g. CO(NH₂)₂, 2-4 ml. 20% HNO₃, and 5 ml. M I at 85-90°. If a large excess Pb is present, the amt. of CO(NH₂)₂ was 10-12 g., temp. 72-82°, and current 10-20 ma. Similarly, Cu was detd. in the presence of Ni. To det. Cu in the presence of Bi: To 50-ml. sample

was added 1-4 ml. 20% HNO₃, 5 ml. 1 M I, 3-5 g. CO(NH₂)₂, and electrolysis was carried out at 85° and 12-15 ma. for 40 min. Better results were obtained when Cu was detd. with an Al anode activated with hot 25% NaOH instead of a Pb anode. A soln. contg. 1-8 mg. Cu in 40 ml. was acidified with 1 ml. 4 N H₂SO₄, 0.5 ml. 10% HCl, 1.5 ml. with 5 ml. M NH₂OH.HCl, and mixed with 5 ml. M I. Another procedure for the detn. of Cu substituted 3-5 g. Na₂HPO₄ for H₂NOH.HCl. Similar procedure was found suitable for the detn. of Cu in the presence of Fe²⁺. For the detn. of Cu in common steels, the following procedure was followed: Two g. steel was dissolved in warm 40 ml. 4 N H₂SO₄, and 10 ml. H₂PO₄ (d. 1.24), the soln. boiled 5-10 min., dild. with H₂O, and the carbides, Cu, and part of the Ni were filtered off. The ppt. was washed with cold and hot water, digested with 2-3 ml. hot HNO₃ (1:1), and with hot water again. The filtrate was dild. to 50-60 ml., the Fe ppptd. with NH₃, the ppt. dissolved in warm dil. HNO₃, the whole pptn. repeated, both filtrates evapd. to small vol., the soln. treated with NH₃, filtered into a beaker, neutralized with 20% HNO₃, dild. with water to 40-60 ml., treated with 2 ml. 20% HNO₃, 7 ml. M I, 5-8 g. CO(NH₂)₂, and electrolyzed with a Pb anode at 85-90° for 40 min. M. Hudlický

54 M MCR, L-04118

Microdetermination of silver and gold by electrolysis without applied voltage. Lumír Šummer (Masarykova Univ., Brno, Czech.). Chem.-Ztg. 1958, 82, 81-83 (1954); cf. preceeding abstr.—Electrolysis without applied voltage was successfully applied to the detn. of Ag and Au. Ag is detd. in solns. of HNO₃ contg. tartaric acid (I) by electrolysis at 4-10 ma. at 90-2° for 30-5 min. (Pb electrode). The addn. of I is not necessary when a Cu electrode is used. Addn. of complexon(III) accelerates the deposition of Ag. In the presence of Cu⁺⁺ CO(NH₂)₂ was added to the soln. in the course of electrolysis. Galenites were analyzed for Ag &

follows: Galenite (1-2 g.) was oxidized with 15-20 ml. HNO₃ and 8 ml. 30% H₂O₂, the soln. boiled, treated with 5-10 ml. NH₄OH (to methyl orange), dild. to 80 ml., heated to the b.p., filtered after 30 min. over sintered-glass filter (G4), the ppt. washed with cold water (filtrate I), washed with concd. soln. of Na₂CO₃ with H₂O, and digested with 2-3 ml. 20% HNO₃. The residue on the filter was washed with hot water (filtrate II), both filtrates were evapd. to a total vol. of 20-30 ml., neutralized with NH₃, treated with 3-4 ml. 20% HNO₃, boiled, dild. to 50-60 ml., and electrolyzed for 5 min. at 85-90°. Au⁺ was detd. by electrolysis in a soln. contg. HNO₃ and HCl at 85-7° and pH 0.9-1.1.

M. Hudlický

SOMMER, L.

Microdetermination of silver and gold by the use of internal electrolysis. In
Russian. P. 46

Vol. 20, no. 1, Feb. 1955
SBORNÍK ČEJKOSLOVATSKÝCH KHIMICKÝCH RABOT
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

Sommer, L. m. ir.

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SPECTROPHOTOMETRIC INVESTIGATION OF SOME
ANALYTICAL IMPORTANT COMPLEXES OF Ti IN SOLU-

TION. Afnošt Okáč and Lumír Sommer (Institut für analy-

tische Chemie der Universität, BYTU (Tschechoslovakei)).

Anal. Chim. Acta 12, 345-55 (1958) Oct. (in German)

The stepwise formation of complexes was demonstrated spectrophotometrically in solutions containing colored complexes of titanium with chromotropic acid, pyrocatechol, titron, sulfosalicylic acid, gallio acid and pyrogallolcarboxylic acid in acid medium. In dilute acid solutions of complexes a simple complex TiR is usually formed, in weakly acid buffer solutions a relatively stable complex TiR_2 is formed, which, however, up till now has not been demonstrated in the case of sulfosalicylic and pyrogallolcarboxylic acid. The stability of the chelates formed is directly related to their absorption spectra and the hydrogen bond stability between the functional groups of the ligand. Formation of a simple stable complex is a necessary condition for the development of an exact photometric method. From this point of view some methods for determination of titanium have been discussed. (auth)

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Sommer LUMIR

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Kojic acid as a new indicator for complexometric determination of iron. Lumir Sommer and Zdenek Kolárik
Collection Czech. Chem. Commun. 21, 1645-7 (1956) (in German).—See C.A. 50, 13648z.

R.I.C.

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Sommer, Lumír

The polarographic behavior of catechol, tiron, 1,8-di-hydroxynaphthalene and chromotropic acid.¹ Lumír Sommer and Ladislav Deníšek (Univ. Brno, Czech.). ² Chem. Listy 50, 1215-18(1956).—Polarographic behavior of some polyphenols under anodic polarization and the dependence of their half-wave potentials were studied at the dropping 11g and rotating Pt electrodes.

L. Štránská

PM

SOMMER, LUMIR

Kojic acid as a new indicator for complexometric determination of iron. Lumír Sommer and Zdeněk Kolářík
Ustavu ČVUT, Brno, Českého Chem. Listy 50, 1323-3
(1966).—Mixt. of kojic acid (I) (0.5% soln.) and methylene blue (0.02-0.1% soln.) is recommended as an indicator in solns. buffered with a soln. contg. 0.45 g. CH₃CICO₂H and 34 g. AcONa in 1 l. H₂O at pH 2. Red soln. of the complexes FeR and FeR₂ (R = anion of I) turns yellow on addn. of excess 0.05 or 0.01M di-Na salt of ethylenediaminetetraacetic acid. The color change is not affected by temp. within the range 40-100°. In the presence of Al³⁺ the temp. must not exceed 60°. In the presence of Co²⁺ the titration is carried out at 95°. Cu²⁺, Ni²⁺, Hg²⁺, Bi³⁺, Th⁴⁺ interfere, so do anions masking Fe, i.e. PO₄³⁻, P⁻, oxalates, and tartrates.

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Sommer, L

Chem

✓ 1820. Triphenylmethane dyes as complexometric
indicators for the determination of iron. L. Sommer
and Z. Kolafik (Inst. Anal. Chem., Masaryk Univ.,
Brno, Czechoslovakia). *Chem. Listy*, 1956, 50 (9),
1445-1449. —Various derivatives of triphenyl-
methane and trianaphthylmethane dyes were studied
as indicators for the complexometric determination
of iron, and Eriochrome cyanine R was found to be
the most suitable. J. Žíka

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SOMMER, LUMÍRA

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Analytical functional group for boric acid. Lumíra Sommer and Marie Hnilíčková (Masaryk Univ., Brno, Czech.). Chem. Listy 50, 1573-9 (1956).—On evang. aq. solns. of H_3BO_3 with alc. soln. of 32 org. dyes to dryness certain dyes reacted with H_3BO_3 giving rise to mixts. of colored structurally different forms which were partially characterized by absorption spectra but could not be assigned any definite structure. L. J. Urbánek

Analytical utility of azochromotropic dyes.
Sommer and Marie Hnilicková (Masaryk Univ., Brno,
Czech.). Chem. Listy 50, 1580-7 (1956). Of a group of
azochromotropic dyes (I) under test, *p*-carboxyphenylazo-
chromotropic acid and *p*-arsonophenylazochromotropic acids
are the best reagents for the detection of H_3BO_4 in the
medium of H_2SO_4 as shown by the greatest bathochromic
flattening of the absorption max. of the colored product.
Sensitivity is enhanced by evapg. 1 drop of the aq. soln. with
a/c. soln. of the dye followed by acidification. Ca^{2+} is best
detd. with *p*-sulfophenylazochromotropic acid at pH 8.5-9
and Mg^{2+} with *p*-nitrophenylazochromotropic acid. Rela-
tionships are discussed between the chem. constitution of I
and their absorption spectra and indicator properties.
L. J. Urbánek

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Sommer, LUMIR.

✓ Analytical reactions of salicylic acid and its derivatives
and spectrophotometric investigation of the Tl^{4+} -enio-
salicylic acid complexes. Lumír Sommer (Masarykova
Univ., Brno, Czech.). Čes. Čas. Chem. 30, 1702-10 (1956).

Chen In the presence of an excess of sulfosalicylic acid (I), Tl^{4+}
forms a relatively small amt. of stable complexes of the
formulas $Tl\text{-I}$ and $Tl\text{-2 I}$ (max. 355 m_A) as proved by the
analysis of the curves indicating the dependence of the ex-
traction coeff. on pH and by the method of continual varia-
tions. A stepwise formation of complex derivs. of Tl^{4+}
with salicylic acids is thus proved. M. Hudlický

Sommer, Lumen

Chex

Spectrophotometric study of the complexes of titanium with chromotropic acid¹ and 1,8-dihydroxynaphthalene.
Arnošt Šukáč and Lumír Sommer (Masarykova Univ., Brno, Czech.). *Chem.-Listy* 50, 1711-28 (1956).--In colored solns. of complexes of Ti^{4+} with chromotropic acid (I) and with 1,8-dihydroxynaphthalene (II), several complexes such as TiR , TiR_2 , TiR_3 , $T(OH)R_3$, and TiR_4 (R being an anion of I or II) were identified whose stepwise formation depended upon the concn. of the components and upon the pH of the solns. Global and partial consts. of formation were calcd. for the stable complexes. The pH values of the formation of the above complexes were detd. It was found suitable for the selective detection of Ti.
M. Jindřich

2

Sommer, Lumír.

Analytical reactions of some α -diphenois and a spectro-
photometric investigation of the complexes of titanium
with catechol and catechol-3,5-disulfonic acid. Lumír
Sommer (Masarykova Univerzita, Brno, Czech. Rep.). Chem. Listy
50(1956) 46-49 (1956). — The colored salts of Ti^{4+} and catechol
(I) or tiron (catechol-3,5-disulfonic acid) (II) contain in
slightly acidic medium several complexes of Ti^{4+} and catechol
 TiR , TiR_2 , and TiR_3 (R being an anion of the type of
the complexes $Ti-1$ and $Ti-2$). The formation of the complexes depends on pH as
shown by spectrophotometric measurements (cf. preceding
abstr.). Complexes $Ti-3$ I and $Ti-3$ II have absorption
max. at 385 and 380 m μ , resp. Molar extinction coeffs. for
the complexes TiR_3 and TiR_2 with I and II are given.
M. Hudlický

Sommer, LUMIR.

check ✓ The analytical functional group for Ti^{4+} . Arnošt UHLÍK and Lumír Sommer (Masarykova Univ., Brno, Czech). Chem. Listy 1988, 82, 1148 & 1900).—On the basis of the reactions of Ti^{4+} with different hydroxy oxo compds., hydroxy acids and aromatic dihydroxy compds., the analytical functional group for Ti^{4+} was found to be a chelate contg. 2 O in a 5- or 6-membered ring. M. Hiddleston

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SOMMER, L.; SKAC, A.

Analytic reactions of chromotropic acid and the spectrophotometric investigation of titanium complex compounds in a solution. p. 213. (SPISY, No. 375, 1956, Brno, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

SOMMER, L.; BENISEK, L.

"Contribution to the polarographic behavior of pyrocatechin, tiron, 1, 8-dioxynaphthalene, and chromotropic acid. In German."

p. 166(COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNÍK
CHECKHOSLOVATSKIKH KHMICHESKIKH RABOT. --Praha, Czechoslovakia.)
Vol. 22, No. 1, Feb. 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

SOMMER, I.; KOLARIK, Z.

"Triphenylmethane dyes as chelatometric indicators in the determination of iron. In German."

p. 203 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK
CHECKHOSLOVATSKIKH KHMICHESKIKH RAEOT. --Praha, Czechoslovakia.)
Vol. 22, No. 1, Feb. 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

SOMMER, L.; HNILICKOVA, M.

"Analytic importance of azochromotropic dyes. In German."

p. 209 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK
CHECKHOSLOVATSKIKH KHMICHESKIKH RABOT. --Praha, Czechoslovakia.)
Vol. 22, No. 1, Feb. 1957

30: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

SOMMER, L.

"Analytic reaction of some -diphenols and the spectrophotometric investigation of complex compound of titanium with pyrocatechin and tiron. In German."

p. 414 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHECKSHOSOLVATSKIKH KHMICHESNIKH RABOT. -- Praha, Czechoslovaka.)
Vol. 22, No. 2, April 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

SOMER, L.

"Analytic reactions of salicylic acid and its derivatives, and the spectrophotometric investigation of the complex compounds of Ti⁴⁺ with sulfosalicylic acid. In German."

p. 453 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHECKSHOSOLVATSKIKH KHMJCHESKIKH RABOT. -- Praha, Czechoslovakia.) Vol. 22, No. 2, April 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

LEITNER, I.; MELCHIONI, R.

"The analytic functional group for boric acid. In German."

p. 1432 (Collection of Czechoslovak Chemical Communications. Vol. 22, no. 5, Oct. 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) 1C, Vol. 7, no. 7, July 1958

~~FEDERAL SCIENCE, L.~~
CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Inorganic Substances.

E-2

Abs Jour : Ref Zhur - Khim., No 10, 1958, No 32180

Author : Lumir Sommar

Inst : -

Title : Photometrical Determination of Titanium in Steels with
Chromotropic, Gallic and Pyrogallocarboxylic acids.

Orig Pub : Chem. listy, 1957, 51, No 5, 875-879; Sb. chokhosl. khim.
rabit, 1957, 22, No 6, 1793-1798.

Color reactions of Ti^{4+} with o- and peri-diphonols were studied spectrophotometrically and a rapid method of Ti determination in alloyed steels containing 0.1 to 1% of Ti, 9.8% or less of Ni and 19.5% or less of Cr was developed. Either chromotropic acid (I), or gallic acid (II); or pyrogallocarboxylic acid (III) is used as the reagent. The interference of alloy elements is not necessary. The interfering

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652410010-1"

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Inorganic Substances.

E-2

Abs Jour : Ref Zhur - Khim., No 10, 1958, No 32180

If I^I or III was used, photometry is carried out at pH = 3.5 to 5.8; in the presence of Fe, pH should not be more than 3.6; Beer's law is complied with at 0.6 to 4% of Ti per mlit. The maxima of light absorption are in the ultraviolet spectrum range; the wave lengths of 420 to 430 m. μ (light filters S 43 or S 42) are suitable for photometry in the visible spectrum range. Detailed methods of Ti determination are presented.

Card 3/3

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the pH to 3.1-3.4 for the Tetra with I, or to 3.5-3.6 for the deca, with II or III, by adding a few drops of NH_4OH by using a glass electrode as a control. Cool, fill to the mark, and measure the absorption against a blank after 30 min. by using filter S47 for I or S42 for II or III. In the presence of Mo and W, dissolve 0.1-0.2 g. steel in 20 ml. warm 7.2N H_2SO_4 , evap., add 5 ml. 60% HClO_4 , and evap. on an asbestos plate until white fumes of HClO_4 escape. Heat the yellow salt (or an addnl. 6 min., cool, dil.) to 80 ml., add 6 ml. NH_4Cl , heat, and pot. the hydroxides of Fe and Ti with NH_4OH . Filter the pot. with a black lead filter, wash with hot 1% NH_4NO_3 , and dil. NH_4OH until the reaction of the filtrate with diphenylcarbazide shows no slight presence of CrO_4^{2-} . Ignite the filter in a Pt crucible, fuse the ash with an excess of KHSO_4 , dissolve in 10 ml. H_2O acidified with 3 ml. 7.2N H_2SO_4 , evap. to a small vol., filter into 60-100 ml. volumetric flask, fill to the mark, and treat aliquots as described above.

M. Hudlicky

MT *fra* *pb*

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Inorganic Substances.

E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57196.

Abstract: of C_2H_5OH , and 2 drops of 0.5% alcoholic solution of III are then added, followed by the irradiation with ultraviolet rays for 30-60 seconds. With this method it is possible to detect the presence of boric acid (2γ) in the presence of : CH_3COO^- , Cl^- , Br^- , I^- , SCN^- , CN^- , $Fe(CN)_4^{4-}$, IO_3^- , BrO_3^- , NO_3^{2-} , NO_2^- , PO_4^{3-} , CO_3^{2-} , SO_4^{2-} , SO_3^{2-} , and S^{2-} . The CrO_4^{2-} , IO_4^- , $S_2O_8^{2-}$, and $Fe(CN)_6^{4-}$ ions should be reduced beforehand by heating with Na_2SO_3 . F becomes weaker in the presence of oxalic, acetic and ascorbic acids and also in the presence of oxiacids. The multi-

Card 4/6

SOMMER, L.

CZECHOSLOVAKIA / Analytical Chemistry--Analysis of inorganic substances.

E-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49233

Author : Sommer, L.

Inst : Masaryk University

Title : Detection and Spectrophotometric Determination of Titanium with Chromotropic Acid

Orig Pub : Spisy Vyd Prirodoved Fak masaryk Univ, No 9, 397-435
(1958)

Abstract : It has been found that chromotropic acid (I) is a valuable reagent for Ti(4+), Fe(3+), Cr(6+), Cu, and Nb. The reaction of I with Ti in dimethylformamide is most sensitive (pD = 6.0); in the presence of ascorbic acid the reaction is selective as well. In equimolar and nonoquimolar solutions, chelate complexes are formed in a number of stages, depending on the composition of the

Card 1/3

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652410010-1" E-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1959, No. 49233

solution, the ionic strength, pH, Ti concentration, and I concentration: $TiOR_2^{6-}$, $TiRO_2^{6-}$, TiO_3^{10-} , TiR_4^{12-} in aqueous medium (R = I anion), and $TiRX_4$ and $TiORX_2$ in nonaqueous medium (X = univalent anion or polar solvent molecule). The existence of the previously hypothesized compound of composition of TiR_3 with an absorption edge at 470 m μ has not been confirmed; the presence of a maximum in the curves of Zhab-Ostromyslenskiy in the opinion of the author is due to a complex equilibrium between chelate compounds, buffer-Ti complexes, and products of the hydrolysis of Ti. The formation of $TiOR_2^{6-}$ and $TiOR_3^{10-}$ can be used in the photometric determination of Ti; in practice, the determination of Ti is most conveniently carried out at pH 2.8 - 3.2 and

Card 2/3

E-19

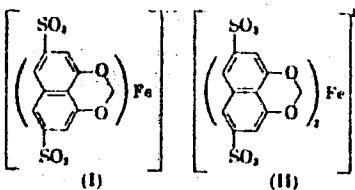
SOMMER, L.

Detection and spectrophotometric determination of ~~4C3J~~
titanium with chromotropic acid. Lumir Sommer (Univ.
Brno, Czech.). Publs. fac. sci. univ. Brno 1958, 16, 407-434
(1958/9) (in German); cf. C.A. 53, 50176, 6880c.—A re-
view with 49 references. M. J. D. Lew 4

Distr: 4E2c(j)

27

Spectrophotometric determination of iron with chromotropic acid. Jáněr Šoumík (Masarykova Univ., Brno, Czech.). *Chem. Listy* 52, 1485-1490 (1958).—Green solns. of chromotropic acid (I) and Fe^{+++} contain complexes FeR^- and FeR_2^{+} . FeR^- has absorption max. at $725 \mu\text{m}$, it arises predominantly in acid solns. in the pH range 3.5-4 and passes at higher pH and greater concns. of I to a blue-green complex FeR_2^{+} with absorption max. at $630-40 \mu\text{m}$. This complex is formed quantitatively in the pH range 6.4-8.0. Further increase of pH does not result in coordination of another I anion to give a complex FeR_3^{+} but brings about a gradual decompr. of the blue-green complex with simultaneous hydrolysis of Fe^{+++} ions. This anomalous behavior of I in comparison with o-diphenols (cf. Heller and Schwarzenbach, *C.A.* 46, 6990a) is ascribed to steric and electrostatic influence of the voluminous negatively charged SO_3^- anions in the -3,6- position. The binding of I in the complex results in both cases in simultaneous cleavage of both phenolic protons, thus suggesting the structures I and II of the resulting complexes. Both formulations were con-



firmed by electromagnetic sept. of the complex ions. Stability of the complexes is FeR^- ($\log K = 23.10$) and FeR_2^{+} ($\log K = 30.80$). In acid medium at $\text{pH} < 3$ I is oxidized by Fe^{+++} salts to an orange-yellow product with absorption max. at $437 \mu\text{m}$. Similar products are obtained by oxidizing I with NaNO_2 or H_2O_2 in acid medium. Reaction of Fe^{+++} with excess of I in urotropine buffer soln. (pH 6.4-8.0) is suitable for selective proof (pH = 6.0) and photometric detn. of Fe at $640 \mu\text{m}$. Small amts. of Ti^{4+} , $\text{Cr}_2\text{O}_7^{2-}$, and MO_4^{2-} do not interfere. The method, however, does not possess any substantial advantages over the methods with sulfosalicylic acid or Tiron.
L. J. Urbánek

Distr: bE2c

V Detection of Uranium with chromotropic acid. Lumen Sommer (Univ. Brno, Czech.), Z. Anal. Chem., 103, 412-414 (1938).—To a drop of weakly acid soln. on a spot plate add a few crystals of chromotropic acid and a crystal of NaOAc. A red or orange color appears. F⁻ and PO₄³⁻ do not interfere, but Fe⁺⁺⁺, Cr₂O₇²⁻, UO₂⁺⁺, VO₃⁻, MoO₄²⁻, NbO₅⁻, Hg⁺⁺, Hg₂⁺⁺, Ag⁺, and Au⁺⁺⁺ do interfere. The interference of Fe⁺⁺⁺ and some others is reduced by treatment with HONH₂Cl.

K. G. Stone

The method of continuous variations and its application
to complexes. Ivařík Sommer and Marie Hailíková
(Univ. Brno, Czech.). *Bull. Soc. Chim. France* 1959, 38-45.
—The spectroscopic application of the method of continuous
variations to complex equil. was studied. The effects of
hydrolysis, interfering complexes between the metal being
studied and buffers, mixed complex formation, and com-
petitive reactions were investigated. In many of these
cases the procedure of Job (*C.A.* 22, 2120) does not lead
directly to the correct mol. coeffs. The results of a number
of expts. are given and discussed. C. J. Ultee

3

Spectrophotometric investigation of titanium chelates with chromotropic acid. Lumír Sommer (Univ. Brno, Czech.). *Acta Chim. Acad. Sci. Hung.* 18, 121-7 (1959) (in German).—Above pH 2 and 4, chromotropic acid (I), when present in a large excess, forms 2 stable complexes with Ti^{4+} . The structure of these chelates are $TiOR_4^{4-}$ and $TiOR_4^{2-}$, resp. To det. Ti, 2 methods are described. Method A: At pH 2.9-3.2, in the presence of a formate buffer and large amt. of salts, traces of $TiOR_4^{4-}$ are formed. The optical d. of the soln. must be measured at the isobestic point. Interference of Fe^{+++} can be removed with ascorbic acid. HCl, HNO_3 , F⁻, oxalate, hydroxy acids, PO_4^{3-} , NbO_4^{3-} , WO_4^{3-} , UO_4^{4-} , and oxidizing agents interfere. Method B: The color is developed at pH 5.4-6 in the presence of an acetate buffer, and the optical d. measured at 440 m μ ; Fe^{+++} must be eliminated with EDTA. Oxalates, hydroxy acids, Be^{++} , WO_4^{3-} , MoO_4^{3-} , VO_4^{3-} , NbO_4^{3-} , UO_4^{4-} , and oxidizing agents interfere. It is essential to use pure di-Na salts of I in both detas. The formation of Ti-I complexes in aq. and nonaq. media is discussed.
Dennis Parker

3

2 mg (Mng)

4E2c (j)

jj

Surkov, I.

"Qualitative test for and fluorometric determination of boric acid." In German.
p. 90.

COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS, Prague, Czech.,
Vol. 34, No. 1, Jan. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 6, Sept. 59

Unclassified

HNILICKOVA, M.; SOMMER, L.

4-(2-pyridylazo) resorcinol as chelatometric indicator. Coll Cz
Chem 26 no.9:2189-2205 '61.

1. Institut fur analytische Chemie, Purkyns Universitat, Brno.

(Chelatometry) (Resorcinol)

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation: Institute of Analytical Chemistry, Purkyne University
(Institut fuer analytische Chemie, Purkyne-Universitaet), Brno

Source: Prague, Collection of Czechoslovak Chemical Communications,
Vol 26, No 11, November 1961, pp 2754-2773

Data: "Acetate Complexes of Trivalent Iron."

Authors:

SOMMER, L
PLISKA, K

8/081/63/000/001/032/061
B144/B186

AUTHOR:

Sommer, L.

TITLE:

Titanium^{IV} complexes with polyphenols and o-phenol carboxylic acids in an anhydrous medium

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 1, 1963, 114-115;
abstract 1V23 (Collect. Czechosl. Chem. Commun., v. 27,
no. 2, 1962, 439-457 [Germ.; summary in Russ.])

TEXT: Complex formation of Ti^{IV} with pyrocatechol (I), chromotropic (II) and salicylic (III) acids was studied spectrophotometrically in concentrated H₂SO₄, N,N-dimethyl formamide (IV) and absolute CH₃OH. In equimolar solutions of Ti⁴⁺ and I - III, TiR (V) forms, where R is the radical of I - III; with an excess of ligand, a mixture of V and TiR₂⁻ (VI) or only VI is obtained. The values of the constants K of complex formation from Ti⁴⁺ and I - III at 22° are calculated (the solvent, the ligands, log K_V, and log K_{VI} are given): H₂SO₄, I, 2.7, - 1 H₂SO₄, II, 3.7, - 1

Card 1/2

JIN TSIN-JAO; SOMMER, L.; OKAC, A.

Chelates of iron(III) with p-aminosalicyl acid. Coll Cz Chem
27 no.5:1150-1160 My '62.

1. Institut fur analytische Chemie, Purkyne Universitat,
Brno.

JIN TSIN-JAO; SOMMER, L.; OKAC, A.

Chelates of iron(III) with 4-methylsalicyl acid. Coll Cz Chem
27 no.5:1161-1170 My '62.

1. Institut fur analytische Chemie, Purkyne Universitat, Brno.

JIN TSIN-JAO; SOMMER, L.; OKAC, A.

*Chelates of o-dihydroxybenzoic acids with iron(III). Coll Cz
Chem 27 no.5:1171-1190 My '62.*

1. Institut fur analytische Chemie, Purkyne Universitat, Brno.

SOMMER, L.

Spectrophotometric determination of small amount of titanium in pig
iron and raw steel by means of chromotropic acid. Coll Cz Chem 27
no.9:2212-2216 S '62.

1. Institut fur analytische Chemie, Purkyne Universitat, Brno.

SDMMER, Lumir, Doc.dr. (Brno, Kotlarska 2, Czechoslovakia)

On the accurate spectrophotometric determination of iron (III) and
titanium(IV) by means of polyphenols and related compounds. Acta
chimica Hung 33 no.1:23-30 '62.

1. Institut fur Analytische Chemie der Purkyne-Universitat.

SOMMER, L

CZECHOSLOVAKIA

SOMMER, L.

CSSR

Institute for Analytical Chemistry, Purkyne University, Brno
Prague, Collection of Czechoslovak Chemical Communications, No 2, 1963,
pp 119-162

"Spectrophotometric Titanium(IV) Determination by Means of Ascorbic Acid"

CZECHOSLOVAKIA

SOMMER, L.

Institute of Analytic Chemistry of Purkyne University
(Institut für analytische Chemie, Purkyne-Universität),
Brno

Prague, Collection of Czechoslovak Chemical Communications,
No 9, 1963, pp 2393-2413

"Titan(IV)-Chelate with Chromotropic Acid in Liquid Solutions."

CZECHOSLOVAKIA

SOMMER, L.

Institute of Analytic Chemistry of Purkyne University (Institut für analytische Chemie, Purkyne-Universität), Brno

Prague, Collection of Czechoslovak Chemical Communications,
No 10, 1963, pp 2716-2730

"On the Reaction of Titan(IV) with Sulfosalicylic Acid."

SCIENTIFIC

CZECHOSLOVAKIA

SOMMER, L.

Institute of Analytic Chemistry of Purkyne University
(Institut für analytische Chemie der Purkyne-Universität),
Brno

Prague, Collection of Czechoslovak Chemical Communications,
No 11, 1963, pp 3057-3071

"Reactions of Titan (IV) with 2,3-Dihydroxynaphthaline-6-Sulfonic Acid."

SOMMER, L.

Spectrophotometric titanium(IV) determination by ascorbic acid. Coll Cz Chem 28 no.2:449-462 F '63.

1. Institut fur analytische Chemie, Purkyne-Universitat,
Brno.

SOMMER, L.

Titanium(IV)-chelate with pyrocatechol, pyrocatechol-3,5-di-sulfonic acid and protocatechuic acid. Coll Cz Chem 28 no.8:
2102-2130 Ag '63.

1. Institut fur analytische chemie, Purkyne-Universitat, Brno.

SOMMER, L.

Titanium(IV)-chelate with chromotropic acid in aqueous solutions. Coll Cz
Chem 28 no.9:2393-2314 S '63.

1. Institut fur analytische Chemie, Prukyne-Universitat, Brno.

SOMMER, L.

On the reaction of titanium (VI) with sulfosalicylic acid.
Coll Cz Chem 28 no.10:2716-2730 O '63.

1. Institut fur analytische Chemie, Purkyne-Universitat, Brno.

SOMMER, L.

Reactions of titanium (IV) with 2,3-dihydroxynaphthalene-6-sulfonic acid. Coll Cz Chem 28 no.11:3057-3071 N'63.

1. Institut fur analytische Chemie, Purkyne-Universitat, Brno.

SOMMER, L.

Sixtieth birthday of Professor Arnost Okac. Chem listy 57 no.8:
876-877 Ag '63.

SOMMER, L.; HAVEL, J.

Reactions of niobium (V) with 1, 8-dihydroxynaphthalene-3,6-disulfonic acid and with 3,4-dihydroxybenzoic acid. Coll Cz Chem 29 no. 3:690-715 Mr '64.

1. Institute of Analytic Chemistry, Purkyne University, Brno.

SOMMER, L.

"Complexation in analytical chemistry" by A.Ringbom. Reviewed
by L.Sommer. Chem listy 53 no.11:1347-1348 N '64.

"Handbook of analytical chemistry" by L.Meites. Reviewed
by L.Sommer. Ibid.:1348-1349

CZECHOSLOVAKIA

SOMMER, L; SEPEL, T; KURILOVA, L.

Institute for Analytical Chemistry, Purkyne University,
Brno - (for all).

Prague, Collection of Czechoslovak Chemical Communications,
No 11, November 1965, pp 3834-3860.

"Complexes of uranyl with phenol ligands. Part 14: Spectro-
photometric research on a reaction with Tiron and pirocate-
chol."

CZECHOSLOVAKIA

SOLÍK, L; ŠMEL, F; HURÍLOVÁ, L.

Institute of Analytic Chemistry of Masaryk University, Brno
(for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 10, 1965, pp 346-3454

"Complexes of Uranyl with Phenol Ligands III. Spectral-
Photoelectric Examination of the Reaction of Uranyl Ions
with 1,3-Dihydroxy-4-Nitrophenyl-6-Sulphonic Acid and with
Nitroacetoic Acid."

ACC NR: AP6027483 (A) SOURCE CODE: GE/0056/66/000/005/0185/0189

29
B

AUTHOR: Sommer, M.

ORG: KDT, Geodetic Service, Leipzig (KDT, Geodatischer Dienst)

TITLE: Interpolation of free-air gravity anomalies

SOURCE: Vermessungstechnik, no. 5, 1966, 185-189 and insert facing p. 200

TOPIC TAGS: free air anomaly, interpolation, interpolation error, gravity

ABSTRACT: A method for interpolation of free-air anomalies is outlined, providing a numerical and graphic variant for all relief models. From previous, occasional studies it can be concluded that in hilly country the mean error of interpolation will not exceed $\pm 1\text{mGal}$. Orig. art. has: 8 figures, 1 table, and 15 formulas. [Author's abstract.]

[KS]

SUB CODE: 08/ SUBM DATE: 07Dec65/

Card 1/1

hs

UDC: DK 528.27

SOMMER, S.

TECHNOLOGY

Periodical: POZEMNI STAVBY. Vol. 6, no. 10, Oct. 1958.

SOMMER, S. Principles governing the evaluation of the efficiency of sanitary installations and reconstructions. p. 584.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

SOMMERAU, Ye. F.; REYNBERG, G.A., prof., red.; LIPSHITS, O. D., red.;
LYUDKOVSKAYA, N.I., tekhn. red.

[German-Russian medical dictionary] Nemetsko-russkii meditsinskii
slovar'. Moskva, Gos. izd-vo med. lit-ry, 1958. 459 p. (MIRA 11:12)
(German language--Dictionaries--Russian)
(Medicine--Dictionaries)

23324
S/095/60/000/001/001/002
A053/A129

1.2300 also 1573

AUTHORS: Kislyuk, F.I. Doctor of Technical Sciences; Petrov, G. N., Som-
merfel'd, V. N., Glazshteyn, V. G., Engineers

TITLE: Two-channel device for verifying basic parameters of the condi-
tion of electric resistance butt-welding

PERIODICAL: Stroitel'stvo truboprovodov, no. 1, 1960, 20 - 24

TEXT: On the existing KTCA (KTSA) welding installations the parameters of the welding condition are regulated by hand, and there is no guarantee that in mass production pipes are welded in accordance with a prearranged condition of most favorable parameters. The article describes a special two-channel device for automatic remote control of parameters of resistance welding, which permits all welded joints to be verified. On the basis of the recorded diagrams of the welding condition it is easy to determine at any time the nature of the changes in the parameters of the welding condition and their deviation from the prearranged program. From these diagrams and from the collected experimental data it is possible to evaluate the consequences of the deviations in regard to the quality of each welded joint. The two-channel device consists of an a-c ammeter and an

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A053/A129

Two-channel device for verifying basic parameters ...

electric instrument measuring the mechanical shift. In the course of the welding it is easy to observe the recordings of the device by the deflections of the needles and the simultaneous inscriptions on a moving paper roll. The principal parts of the device are a Sel'syn pickup, a Sel'syn receiver, a measuring mechanism, a paper rolling and printing mechanisms. The movement of the pipe during welding is operated by remote control with the aid of the cophasal Sel'syn instruments providing for transformation of mechanical values into electric ones and vice versa. The Sel'syn pickup is mounted on the welding machine and senses all mechanical movements of the moving part of the machine together with those of the pipe, transforming them into electric values. The Sel'syn receiver mounted in the body of the device reproduces each shift of the Sel'syn pickup, transmitting it to the needle and the pen mounted on the shaft of the receiver. The general view of the two-channel device is shown in Figure 2. The welding current is registered by the ammeter. The movement of the paper takes place in accordance with a preselected speed and is operated by a synchronous single phase motor of the Warren type. A mechanism provides also for the imprint on the diagram of the serial number of the joint. The article describes the design of this mechanism and those of the feed of automatic paper and of the colored ribbon; it also gives a description of the electric system governing the two-channel device and the prin-

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S/095/60/000/001/001/002

A053/A129

Two-channel device for verifying basic parameters ...

ciples of its operation. Thus, the device and the commutation system are automatically started at the commencement of welding; the device registers the power of the current, the shifts (at fusing and shrinking) during the entire welding process, it prints on the diagram the serial number of the joint and cuts out the device on completion of each joint. An alternative design provides for the substitution of metallized band in place of paper, in which case recording is done with the aid of a tungsten electrode. The two-channel device has successfully passed a number of laboratory and practical tests. The article shows and describes a number of characteristic diagrams indicating various defects in welding, which become clearly visible by the form of the diagram. The authors of the article conclude that the two-channel device guarantees automatic and distant control of the parameters of resistance welding by recording the basic parameters of the welding condition for each welded joint in the form of a diagram. From these recordings it is easy to ascertain low quality joints caused by gross neglect of the parameters of the welding condition. There is 1 photograph, 2 diagrams, 7 graphs and 1 table.

X

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Two-channel device for verifying basic parameters ...

23324
S/095/60/000/001/001/002
A053/A129

Figure 2:

General view of the two-channel device
1 - counter; 2 - mechanism for colored ribbon feed; 3 - copying mechanism;
4 - driving mechanism for counter and ribbon; 5 - needle with pen of ammeter;
6 - needle with pen of shift recorder;
7 - diagram paper

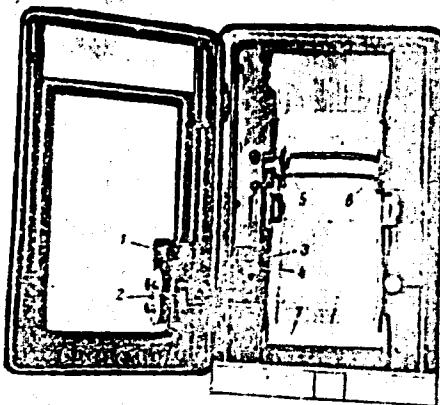


Рис. 2. Общий вид двухканального прибора.

Card 4/4

BLEKTA, M., Dr.; JANOUSEK, St., Doc. Dr.; LUKAS, J., prof. Dr.; SOM-
MERROVA, O.; SEHEK, T., Dr.; TOMASEK, Z., Dr.

Investigations on pregnancy in the population according to certain
biochemical and hematological factors. Cas.lek.cesk. 91 no. 40:1139-
1144 3 Oct 52.

1. Z II. porodnicke kliniky a ustredu laboratore a fakultniho
zdravotnickeho strediska Karlovy university v Praze.
(PREGNANCY, physiology,
hematol., physiology & biochem. aspects, statist.
analysis)

KRATKOVA, Olga
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: PhD

Affiliation: Pediatric Internal Department, Thomayer Hospital (Detske interni oddeleni
Thomayerovy nemocnice) Chief Dr E. KRATKOVA, Prague - Kra

Source: Prague, Prakticky Lekar, Vol 41, No 15-16, Aug 21, 1961; pp 672-673

Data: "Poisoning with Suicidal Intent in Children"

6FO 981643

SOMEROVA, O.

The importance of drawing in determining the mental state
in children in relation to their physical state. Česk pediat
18 no. 3:234-240 '63.

1. Detske interni oddeleni Thomayerovy nemocnice v Praze-Krci,
vedouci MUDr. E. Kratkova, CSc.
(PROJECTIVE TECHNICS) (NEPHROTIC SYNDROME)
(INTELLIGENCE TESTS)

KUNCOVA, Z.; HALIKOVA, M.; MULLEROVA, A.; PAVLASKOVA, I.; SOMHOVA, V.^E
A; TROCHOVA, K.

Experiences with the treatment of asthmatic children. Cesk.pediat.
15 no.9:782-784 S '60.

1. Detskie oddeleni Pakulni polikliniky v Praze 2, prednostka
MUDr. Zdenka Kuncova.
(ASTHMA in infancy & childhood)

SOMNICKI, Roman, mgr., inz.

Continuous classification survey of ship hulls. Bud okretowe
Warszawa 6 no.12:387 '61.

1. Polski Rejestr Statków.

(Poland—Ships)

CZECH

4
Spectrophotometric investigation of some complex compounds in solution. Preliminary communication. A. Otakar and L. Sommer (Masarykova Univ., Brno, Czech.). Chem. Listy 1960, 54, 1008 (1960).—Conditions necessary for spectrophotometric determination of some metals are discussed, especially Tl with phenolic compds. like chromotropic acid, tiron, etc.

M. Hudlický

good

СОМОДЕЛОВ, А.А.

21882 СОМОДЕЛОВ, А.А.
Spoki i usloviya Kombaynirovaniya lyallemantsii.
Trudy Krasnodarsk. in-ta pishch. prom-st;, VIP 7,
1949, s. 95-99.
Bibliogr: 13 NAZV.

SO: Letopis' zhurnal'nykh Statey, No 29, Moskva, 1949.

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652410010-1

PAULIK, Istvan; SONORI, Andor

Economy of the operational period of glass melting tank furnaces. Epitanya-17. att. 3:40.00. Mr 165.

J. Tokai Glass Factory, Tokod.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652410010-1"

SOMOLI, Drago, inz.

Basic raw materials and their influence on the founding
of thin-walled castings. Ljevarstvo 10 no.1/2:13-15 '63.

1. Osjecka ljevaenica i tvronica strojeva, Osijek.

SOMODI, Dragutin, inz. (Osijek)

In construction and automatization in the Osijek Iron Foundry
and Machine Factory. Ljevarstvo 8 no.3/4:103-113 '61.

1. Osjecka ljevaonica zeljeza i tvornica strojeva, Osijek.

SOMODI, Imre, oklevelas gépészaművész, főmérnök.

Experiences of the operation of hydroelectric power plants. Vizugyi
közl no.2:312-321 '62.

1. Tiszaalok Water Power Plant.

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652410010-1

SOMODI, Jozsef

Amateur industrial television camera with transistors.
Radiotechnika 13 no.12:460-463 D '63.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652410010-1"

SOMODI, J.; MORAVEC, R.; KOREN, K.; KAPUSTIK, S.

Apropos of the prevention of metabolic changes following brain
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